

We claim:

1. A nickel-base heat resistant cast alloy, which consists essentially of, by weight %, C: 0.02-0.50%, Si: up to 1.0%, Mn: up to 1.0%, Cr: 4.0-10.0%, Al: 2.0-8.0%, Co: up to 15.0%, W: 8.0-16.0%, Ta: 2.0-8.0%, Ti: up to 3.0%, Zr: 0.001-0.200% and B: 0.005-0.300% and the balance of Ni and inevitable impurities, provided that, [%Al]+[%Ti]+[%Ta], by atomic %, amounts to 12.0-15.5%, that it contains γ/γ' -eutectoid of, by area percentage, 1-15%, that it contains carbides of, by area percentage, 1-10%, and that the "M-value" defined by the formula below (in which % is atomic %) is in the range of 93-98:

$$M=0.717[\%Ni]+1.142[\%Cr]+2.271[\%Ti]+1.9[\%Al]+2.117[\%Nb] \\ +1.55[\%Mo]+0.777[\%Co]+3.02[\%Hf]+2.224[\%Ta]+1.655[\%W] \\ +2.994[\%Zr]$$

2. The nickel-base heat resistant cast alloy according to claim 1, wherein the alloy further contains at least one of the group consisting of Mg: up to 0.01%, Ca: up to 0.01% and REM: up to 0.1%.

3. The nickel-base heat resistant cast alloy according to claim 1, wherein the contents of the impurities are regulated to be up to the following respective upper limits:

Fe: 5.0%, Mo: 1.0%, Cu: 0.3%, P: 0.03%, S: 0.03% and

V: 1.0%.

4. The nickel-base heat resistant cast alloy according to claim 1, wherein the alloy further contains at least one of the group consisting of Mg: up to 0.01%, Ca: up to 0.01% and REM: up to 0.1%, and wherein the contents of the impurities are regulated to be up to the following respective upper limits:
Fe: 5.0%, Mo: 1.0%, Cu: 0.3%, P: 0.03%, S: 0.03% and V: 1.0%.

5. A turbine wheel for automobile engines made of the nickel-base heat resistant cast alloy according to one of claim 1 to claim 4.